

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 1. (Currently Amended) A computer-readable medium containing a storage
2 disk device driver architecture for access by a processing system, wherein the architecture
3 comprises:

4 a RAID class driver including
5 a first physical device object representing a RAID system comprised of a
6 plurality of disks,

7 a plurality of functional device objects, each associated with one of the
8 disks ~~disk~~ and adapted to interface with a second physical device object representing that disk,
9 wherein each second physical device object provides a RAID-specific device identification,
10 wherein the first physical device object is attached with each functional device object, and
11 wherein each functional device object is associated with a different disk ~~wherein the RAID-~~
12 ~~specific device identification for each disk of the RAID system is obtained from a CMOS~~
13 ~~configuration memory.~~

1 2. (Previously Presented) The storage disk device driver architecture
2 computer-readable medium of claim 1, wherein the second physical device object providing a
3 RAID-specific device identification is included in a disk controller driver adapted to interface
4 with a disk controller.

1 3. (Previously Presented) The computer-readable medium of claim 1,
2 wherein the first physical device object representing the RAID system is adapted to provide a
3 standard disk device identification to an operating system.

1 4. (Previously Presented) The computer-readable medium of claim 1,
2 wherein the RAID class driver is adapted to combine each disk into a RAID system.

1 5. (Previously Presented) The computer-readable medium of claim 4,
2 wherein in response to receiving a request to write a data block to RAID system, the RAID class
3 driver is adapted to mirror the data block on at least a portion of the plurality of disks via the
4 associated functional device objects.

1 6. (Previously Presented) The computer-readable medium of claim 4,
2 wherein in response to receiving a request to write a first and second data block to RAID system,
3 the RAID class driver is adapted to write via the associated functional device objects the first
4 data block to a first portion of the plurality of disks and to write via the associated functional
5 device objects the second data block to a second portion of the plurality of disks

1 7. (Previously Presented) The computer-readable medium of claim 4,
2 wherein in response to receiving a request to write a first and second data block to RAID system,
3 the RAID class driver is adapted to write via the associated functional device objects an error
4 correction block to a portion of the plurality of disks.

1 8. (Previously Presented) The computer-readable medium of claim 1,
2 wherein the physical device object representing a RAID system is a child of a RAID controller
3 functional device object adapted to interface with a RAID controller physical device object.

1 9. (Previously Presented) The computer-readable medium of claim 1,
2 wherein the RAID class driver is adapted to configure the physical device object representing a
3 RAID system according to RAID configuration data stored in a computer system configuration
4 memory.

1 10. (Previously Presented) The computer-readable medium of claim 1,
2 wherein a first portion of the plurality of disks is associated with a first disk controller of a first
3 type and a second portion of the plurality of disks is associated with a second disk controller of a
4 second type.

1 11. (Previously Presented) The computer-readable medium of claim 10,
2 wherein the first type is an EIDE type controller and the second type is a SCSI type controller.

1 12. (Previously Presented) The computer-readable medium of claim 10,
2 wherein the first type is a serial ATA type controller and the second type is a parallel ATA type
3 controller.

1 13. (Previously Presented) The computer-readable medium of claim 10,
2 wherein the second type is a controller for an external disk.

1 14. (Previously Presented) The computer-readable medium of claim 1,
2 wherein the RAID class driver is adapted to optimize data access by combining separate data
3 access operations associated with a disk of the RAID system into a single data access operation.

1 15. (Currently Amended) An integrated circuit adapted to perform core logic
2 functions of a computer, the integrated circuit comprising:
3 a RAID controller adapted to induce an operating system to load, into a
4 processing unit on another integrated circuit, a RAID class driver having a physical device object
5 representing a RAID system comprised of a plurality of disks; and
6 a first disk controller adapted to interface with at least a portion of the plurality of
7 disks and further adapted to induce the operating system to load a disk controller driver, wherein
8 the disk controller driver is adapted to provide RAID-specific device identifications for the
9 portion of the plurality of disks, ~~wherein the RAID-specific device identifications for the portion~~
10 ~~of the plurality of disks are obtained from a CMOS configuration memory.~~

1 16. (Original) The integrated circuit of claim 15, wherein the physical
2 device object representing the RAID system is adapted to provide a standard disk device
3 identification to an operating system.

1 17. (Original) The integrated circuit of claim 15, wherein in response to
2 receiving a request to write a data block to the RAID system, the integrated circuit is adapted to
3 mirror the data block on at least a portion of the plurality of disks.

1 18. (Original) The integrated circuit of claim 15, wherein in response to
2 receiving a request to write a first and second data block to the RAID system, the integrated
3 circuit is adapted to write the first data block to a first subset of the portion of the plurality of
4 disks and to write the second data block to a second subset of the portion of the plurality of disks.

1 19. (Original) The integrated circuit of claim 15, wherein in response to
2 receiving a request to write a first and second data block to the RAID system, the integrated
3 circuit is adapted to write an error correction block to at least a subset of the portion of the
4 plurality of disks.

1 20. (Original) The integrated circuit of claim 19, wherein the integrated
2 circuit is adapted to determine the value of an error correction block from the first and second
3 data block.

1 21. (Original) The integrated circuit of claim 15, wherein the integrated
2 circuit is adapted to configure the physical device object representing a RAID system according
3 to RAID configuration data stored in a computer system configuration memory.

4 22. (Original) The integrated circuit of claim 15, further adapted to
5 interface with a second disk controller, wherein the second disk controller adapted to interface
6 with at least a second portion of the plurality of disks and further adapted to induce the operating
7 system to load a second disk controller driver, wherein the second disk controller driver is
8 adapted to provide RAID-specific device identifications for the second portion of the plurality of
9 disks.

1 23. (Original) The integrated circuit of claim 15, further including a
2 second disk controller adapted to interface with at least a second portion of the plurality of disks

3 and further adapted to induce the operating system to load a second disk controller driver,
4 wherein the second disk controller driver is adapted to provide RAID-specific device
5 identifications for the second portion of the plurality of disks.

1 24. (Original) The integrated circuit of claim 23, wherein the first disk
2 controller is of a first type and the second disk controller is of a second type.

1 25. (Original) The integrated circuit of claim 24, wherein the first type is
2 an EIDE type controller and the second type is a SCSI type controller.

1 26. (Original) The integrated circuit of claim 24, wherein the first type is
2 a serial ATA type controller and the second type is a parallel ATA type controller.

1 27. (Original) The integrated circuit of claim 24, wherein the second type
2 is a controller for an external disk.

1 28. (Currently Amended) A method of creating a RAID system comprised of
2 a plurality of disks, comprising:
3 receiving a RAID-specific device identification for each disk of the RAID system;
4 ~~wherein the RAID-specific device identification for each disk of the RAID system is obtained~~
5 ~~from a CMOS configuration memory;~~
6 binding a respective RAID-specific functional interface to each disk having a
7 RAID-specific device identification;
8 binding all of the RAID-specific functional interfaces to ~~combining the disks into~~
9 a same disk object representing the entire RAID system; and
10 providing the operating system with a standard disk device identification via the
11 disk object.

1 29. (Previously Presented) The method of claim 28, wherein the RAID-
2 specific device identification is received from one or more disk controllers, wherein each disk
3 controller is adapted to interface with at least a portion of the plurality of disks.

1 30. (Previously Presented) The method of claim 29, wherein a first disk
2 controller is of a first type and a second disk controller is of a second type.

1 31. (Canceled)

1 32. (Previously Presented) The method of claim 28, further comprising
2 initializing the RAID class driver in response to the identification of a RAID controller.

1 33 . (Previously Presented) The method of claim 32, wherein the RAID
2 controller comprises hardware.

1 34. (Previously Presented) The method of claim 28, further comprising
2 loading a standard disk driver to interface with the disk object, thereby enabling transparent
3 access to the RAID system.

1 35. (New) The method of claim 28 wherein the RAID-specific device
2 identifications are obtained from a CMOS configuration.

1 36. (New) The computer-readable medium of claim 1 wherein the
2 RAID-specific device identifications are obtained from a CMOS configuration.